Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A nuclear power plant (NPP) ~~low-temperature NPP~~ spent fuel reactor core comprising: ~~wherein core comprises~~:

~~fuel assembly~~ a plurality of NPP spent reactor fuel assemblies;

upper and lower core grid plates;

a plurality of control ~~rod~~ rods and corresponding drive mechanisms, said control rods extending through said upper and lower core grid plates;

the NPP spent reactor fuel assemblies ~~are fixed through the upper and lower core grid plates;~~ being located between said upper and lower core grid plates;

each of the control rods being ~~the control rod is~~ inserted from the ~~upper~~ top of the reactor core into a ~~the~~ lattice ~~made up~~ formed of the upper and lower core grid plates and between ~~the~~ said NPP spent reactor fuel assemblies;

the ~~top of control rod is connected with its drive mechanism~~ upper end of each control rod being connected with its corresponding drive mechanism;

the reactor core being ~~is~~ located in a ~~the~~ core vessel ~~, where there are coolant inlet and output nozzles, connected with each other through tube and heat exchanger,~~ located under a core pool, said core pool being provided with coolant inlet and outlet nozzles, which are connected through pipes with a heat exchanger;

wherein ~~the said reactor is fulled by NPP~~ NPP spent reactor fuel is used as nuclear fuel and wherein light water is used as coolant and moderator in the

reactor.

2. (Currently amended) The ~~low-temperature~~ NPP spent fuel reactor according to claim 1, wherein on the top of the core pool there is ~~are the~~ provided at least one of: a sealing cover [[and/or]] and an ~~the~~ airtight gas shield. ~~to constitute at least one gas shield.~~

3. (Currently amended) The ~~low-temperature~~ NPP spent fuel reactor according to claim 1, wherein a pressurizer or a large pool is connected with the coolant inlet nozzle to improve [[the]] static pressure and maintain [[the]] pressure at the core outlet.

4. (Currently amended) The ~~low-temperature~~ NPP spent fuel reactor according to claim 1, wherein ~~within~~ the core pool is coupled to ~~there is~~ an underwater handling canal which is connected with a spent fuel storage pond. ~~and replaces addition of reloading water layer~~ .

5. (Currently amended) The ~~low-temperature~~ NPP spent fuel reactor according to claim 1, further including a ~~wherein the~~ residual heat removal system ~~cooler~~ in the spent fuel storage pond. ~~and the the electromagnetic valve on the connection tube constitute the a passive residual heat removal system.~~